BIAMP®

Vocia®

ANC-1

Operation Manual

January 2012

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this product near water.

6) Clean only with dry cloth.

7) Do not block ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other product (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong.

The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with equipment rack, cart, stand or table designed to provide adequate mechanical strength, heat dissipation and securement to the building structure.

When a cart is used, use caution when moving the cart and product combination to avoid injury from tip-over.

13) Unplug this product during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING - To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

WARNING - This product employs Safety Grounding and must be connected to a MAINS socket that is properly grounded to provide a protective earthing connection.

Disconnect Device - The MAINS plug is used to disconnect MAINS power and must be installed near the equipment and remain readily accessible.

Explanation of safety related symbols - Product labeling and the operation manual may use the internationally recognized symbols defined below to note safety messages.

Lightning Bolt: Hazardous Live voltages present when this unit is in operation. Do not touch terminals marked with this symbol while the unit is connected to live power.

Exclamation Point: Replace components (i.e. fuses) only with the values specified by the manufacturer. Failure to do so will compromise safe operation of this unit.

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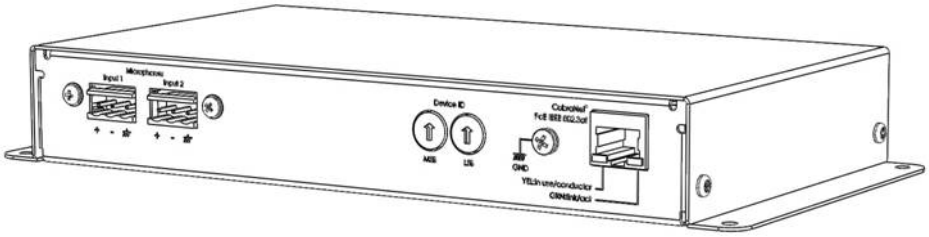


The ANC-1 allows the Vocia® system to adjust output levels automatically in response to changes in ambient noise levels. The ANC-1 is a networked device for use with Biamp's Vocia Amplifier (VA-8600). It accepts two ambient noise inputs at microphone or line level. Most high-quality dynamic and condenser microphones can be used in conjunction with the ANC-1. Input gain for each of the two inputs is user configurable via the Vocia software interface. The ANC-1 processes the ambient noise information using Biamp's adaptive ambient noise compensation algorithm and sends data to the VA-8600 to change the output level accordingly. The Vocia software interface permits comprehensive adjustment of ANC parameters. The ANC-1 utilizes IEEE compliant Power over Ethernet (PoE) technology.

FEATURES

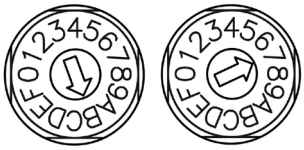
- Automatic, adaptive volume adjustment based on ambient noise sensing and processing
- 48V phantom power
- Wall mountable
- CobraNet audio/control with dynamic use of available bundles, plus power on a single cable
- Power and data over a single Ethernet cable
- Status LEDs
- Sturdy component housing
- **CE** marked and **RoHS** compliant
- Covered by BIAMP Systems' warranty

Setup and Use

The Vocia software provides an intuitive interface for configuration of the ANC-1. The information supplied by this manual relates to physical connections and assignment. For more details on setup of the ANC-1 operational parameters please consult the Vocia Help File.

Device ID

The rotary ID switches are located on the ANC-1 and give the unit a unique Device ID. The switches are in hexadecimal format. All ANC-1 units must have a unique Device ID to function within a Vocia Paging World (i.e., it is not possible to have two ANC-1 units with the same Device ID of hex 07). To assign a Device ID of hex 07, turn the LSB switch to 7 and leave the MSB switch on 0. To create an ID of hex B7, turn the LSB switch to 7 and turn the MSB switch to B. Device ID switches should be set using a 0.1 inch (2.5mm) to 0.12 inch (3.0mm) flat blade screwdriver. More information on setting IDs and the hexadecimal numbering scheme used in Vocia can be found in the Vocia Help File.



Please note: Changes made to the Device ID while connected to the network require a power cycle in order to take effect.

CobraNet

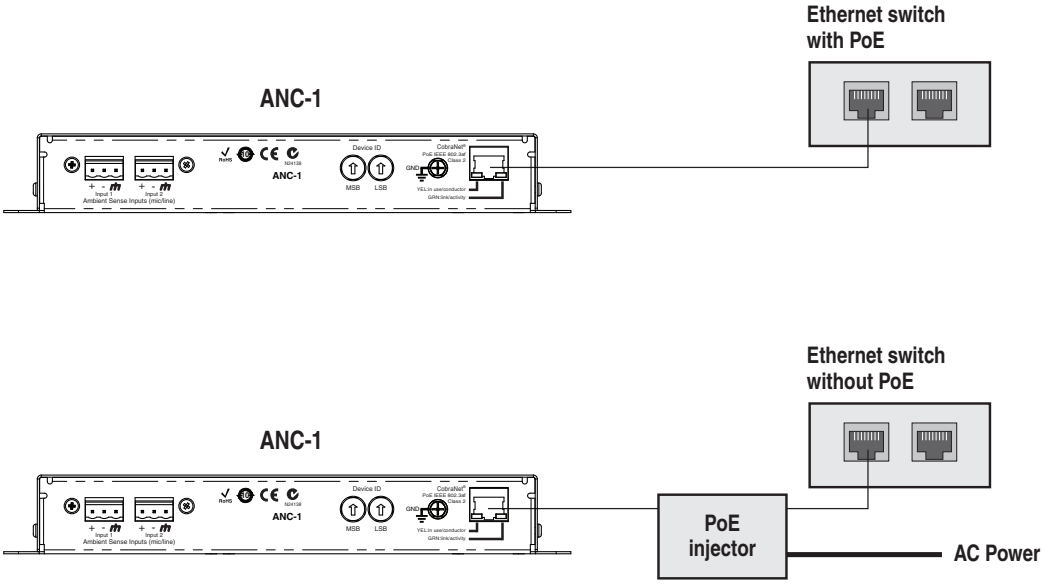
The ANC-1 is a CobraNet device. All CobraNet routing and bundle assignments are processed by the Vocia devices locally. Vocia devices are not interoperable with non-Vocia devices.

Network Connection

The ANC-1 has one RJ45 connector that should be wired to CAT5, CAT5e, CAT6, or CAT7 cabling to interface the ANC-1 to a Vocia system via a PoE-compliant network switch. The RJ45 connector provides two LEDs that indicate Ethernet link and network activity (see table below).

Left LED	Right LED	Description
None	None	No power or data connectivity. Please check the PoE network connection.
Green	None	Link established.
Green	Flashing amber	Link established and CobraNet activity detected; the unit is acting as a CobraNet performer.
Flashing green	Flashing amber	Link established and CobraNet activity detected; the unit is operating as a CobraNet conductor.
Flashing amber	Flashing amber	CobraNet fault. Check cabling and configuration for errors.

This connection carries control data, power, and digital audio over a single Ethernet cable. PoE-enabled network switches or PoE midspan adapters must be used to power the ANC-1. These must be 802.3af compliant. The maximum distance between any unit and an Ethernet switch is 100 meters (328 feet) when using copper cabling. Additional Ethernet switches and/or fiber-optic cable can be used to further extend distances between units on a network. Please note that CobraNet limits network extensions to seven hops (one-way transmissions) within a network.

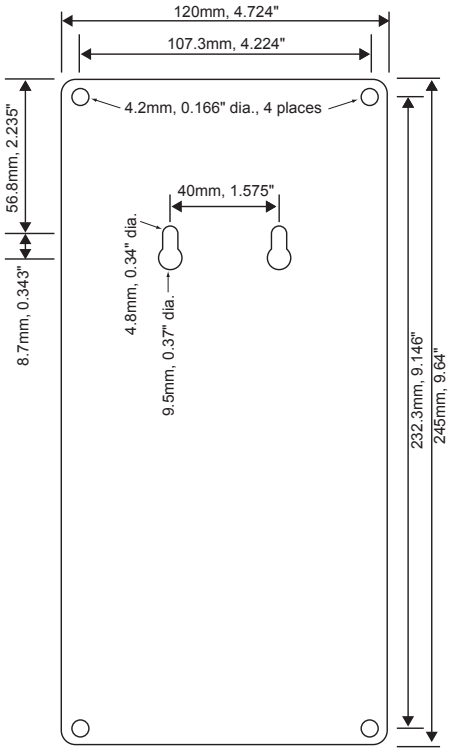


Ambient Noise Input Connections

Two plug-in barrier-strip connectors on the ANC-1 connect the ambient sensing sources to the device. One or two microphones or line-level sources may be connected (gain adjusted accordingly in the Vocia software interface). Both connections may provide phantom power, switchable from software (default: off). Multiple microphones may be mixed before connecting to the ANC-1.

Installation

The ANC-1 can be mounted on a wall using screws through the case flanges (#6 or 6mm dia. X 4) or two screws in the keyholes on the rear (#8 or 4.5mm dia., max 9mm dia. head).

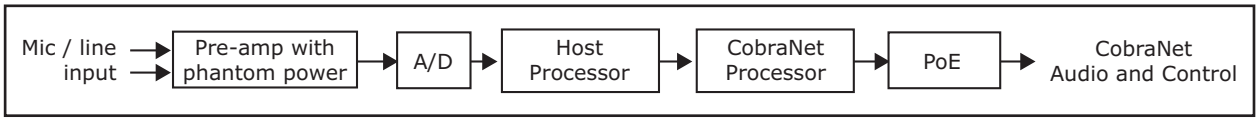


Please install the unit away from heat sources, such as vents and radiators, and in rooms with adequate ventilation. Ensure that air can circulate freely behind, beside, and above the unit. Do not exceed the maximum ambient operating temperature of 113 degrees F (45°C). Be aware of conditions in an enclosed rack that may cause the temperature to exceed ambient room conditions.

Ambient Noise Compensation 1 SPECIFICATIONS

Ambient Noise Input Configuration:	2x balanced mic/line level Phantom power: 48 VDC (7mA/ input) Compliant with IEC 1938 Plug-in barrier strip connectors	**Environment RT_{60}:**	300mS to 2 Seconds
Input Impedance:	8k ohms (mic/line balanced)	**Metering:**	Ambient Level; Program Level; Compensation
Input gain range:	0dB – +66dB	**Power:**	802.3af (PoE) Class 2
Network Connection:	RJ45 with Ethernet/PoE cable (CAT5, CAT5e, CAT6 or CAT7)	**Overall Dimensions** Height: Width: Depth:	 1.279 inches (32 mm) 9.646 inches (245 mm) 4.724 inches (120 mm)
Compensation Range:	+/- 25dB	**Weight:**	Approx 1.65 lbs (750 g)
Compensation Ratio:	0.25:1 to 4:1	**Ambient Operating Temperature Range:**	32-113 degrees F (0-45 degrees C)
Ramp In/Out Times:	Minimum 1dB/Second; Maximum 10dB/Second	**Compliance:**	FCC Part 15, class B CE marked RoHS Directive UL 60065 Listed, E215636 C-UL Listed, E215636 C-Tick, N24138 (Australia)

Ambient Noise Compensation 1 BLOCK DIAGRAM



ANC-1 WARRANTY

BIAMP SYSTEMS IS PLEASED TO EXTEND THE FOLLOWING 5-YEAR LIMITED WARRANTY TO THE ORIGINAL PURCHASER OF THE PROFESSIONAL SOUND EQUIPMENT DESCRIBED IN THIS MANUAL

1. BIAMP Systems warrants to the original purchaser of new products that the product will be free from defects in material and workmanship for a period of 5 YEARS from the date of purchase from an authorized BIAMP Systems dealer, subject to the terms and conditions set forth below.

2 If you notify BIAMP during the warranty period that a BIAMP Systems product fails to comply with the warranty, BIAMP Systems will repair or replace, at BIAMP Systems' option, the nonconforming product. As a condition to receiving the benefits of this warranty, you must provide BIAMP Systems with documentation that establishes that you were the original purchaser of the products. Such evidence may consist of your sales receipt from an authorized BIAMP Systems dealer. Transportation and insurance charges to and from the BIAMP Systems factory for warranty service shall be your responsibility.

3. This warranty will be VOID if the serial number has been removed or defaced; or if the product has been altered, subjected to damage, abuse or rental usage, repaired by any person not authorized by BIAMP Systems to make repairs; or installed in any manner that does not comply with BIAMP Systems' recommendations.

4. Electro-mechanical fans, electrolytic capacitors, gooseneck microphones, cords connecting handheld microphones, hard-drives, displays, and normal wear and tear of items such as paint, knobs, handles, keypads and covers are not covered under this warranty. All server-based devices are warranted for 3 years only.

5. This warranty is in lieu of all other warranties, expressed or implied. Biamp Systems disclaims all other warranties, expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose.

6. The remedies set forth herein shall be the purchaser's sole and exclusive remedies with respect to any defective product.

7. No agent, employee, distributor or dealer of Biamp Systems is authorized to modify this warranty or to make additional warranties on behalf of Biamp Systems. Statements, representations or warranties made by any dealer do not constitute warranties by Biamp Systems. Biamp Systems shall not be responsible or liable for any statement, representation or warranty made by any dealer or other person.

8. No action for breach of this warranty may be commenced more than one year after the expiration of this warranty.

9. Biamp systems shall not be liable for special, indirect, incidental, or consequential damages, including lost profits or loss of use arising out of the purchase, sale, or use of the products, even if BIAMP Systems was advised of the possibility of such damages.

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FCC NOTICE - CLASS B DIGITAL DEVICE

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential as well as in a commercial installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) Reorient or relocate the receiving antenna, 2) Increase the separation between the equipment and receiver, 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected or 4) Consult the dealer or an experienced radio/TV technician for help.

BIAMP® ! ! DoC VANC201003!

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EC Declaration of Conformity

Biamp Systems Corporation, as manufacturer having sole responsibility, hereby declares that the following described product complies with the applicable provisions of the DIRECTIVES below except as noted herein. Any alterations to the product not agreed upon and directed by Biamp Systems Corporation will invalidate this declaration.

Product Model:	Vocia® ANC-1	
Product Description:	Ambient Noise Compensation Control	
Applicable EC Directives:	Applicable Harmonized Standards:	
LVD Directive (2006/95/EC)	Safety	EN 60065:2002
EMC Directive (2004/108/EC)	Emissions	EN 55103-1:1996, Environment E2
	Immunity	EN 55103-2:1996

Special Considerations for Product Environment or Compliance:

Use only CE marked Power over Ethernet (PoE) device.

Shielded cabling must be used for system connections.

Technical Construction File, Location and Contact:

Biamp Systems Corporation	phone:	(503) 641.7287
9300 S.W. Gemini Drive	fax:	(503) 626.0281
Beaverton, OR USA 97008	e-mail:	compliance@biamp.com

Authorized Representative: Larry Copley, Compliance Engineer

Authorized Signature:

Issued: March 2010!

EU RoHS COMPLIANT

This Biamp product, including all attendant cables and accessories supplied by Biamp, meets all requirements of EU Directives 2002/95/EC of January 27, 2003, and 2005/618/EC of August 18, 2005, the EU RoHS Directives. An EU RoHS Materials Content Declaration document may be obtained at www.biamp.com

(This information is presented to comply with the requirements of Chinese law SJ/T11363-2006)

有害物质表

Biamp Systems Corporation

自动音量控制 (Automatic Volume Control)

Vocia ANC-1

部件名称	有毒有害物质或元素					
	Pb 铅	Hg 汞	Cd 镉	Cr+6 六价铬	PBB	PBDE
设备机箱 (Equipment Chassis)	X	O	X	O	O	O
插拔式接线端子 (Plug-in Terminal Blocks)	O	O	O	O	O	O
扎带 (Cable Ties)	O	O	O	O	O	O
光盘(CD ROM)	O	O	O	O	O	O
手册和其他书面文档 (Manual and Paper Documents)	O	O	O	O	O	O
包装箱和所有包装材料 (Box and Packing Materials)	O	O	O	O	O	O

0：表示该部件所有均质材料中的这种有毒有害物质低于 SJ/T11363-2006 的限制要求.

X：表示该部件中至少有一种均质材料所含的这种有毒有害物质高于 SJ/T11363-2006 的限制要求.

在电触头和（或）镀镉所含的均质材料中，镉及其化合物的含量可以超过 0.01%，但欧盟指令 91/338/EEC（根据欧盟指令 76/769/EEC）限制销售和使用某些危险物质和制剂部分中所禁止的用途除外

在以下一种或多种物质所含的均质材料中，铅及其化合物的含量可以超过 0.1%:

1) 电子元器件中玻璃内所含的铅
2) 铅在钢材中是作为一种合金元素，含量可达 0.35%
3) 铅在铝材中是作为一种合金元素，含量可达 0.4%
4) 铅在铜材中是作为一种合金元素，含量可达 4%
5) 高熔点类焊料中的铅（即铅料合金，铅含量超过 85%）
6) 电子陶瓷部件内的铅
7) 由两种以上元素组成的焊料中所含的铅，用于连接针脚和微处理器包装，其中铅的含量超过 80% 但低于 85%
8) 顺应针连接系统内的铅
9) 倒装芯片封装中半导体芯片及载体之间形成可靠连接所用焊料中的

在正常使用情况下，中国环保使用期限为 10 年，条件是：

- 环境温度为 0-40C (32-104°F)
- 湿度为 0-95%，无凝结
- 海拔高度为 0-10,000 英尺
- 气流不受阻碍
- 没有水或其他液体进入任何部件
- 电源为 IEEE 802.3af POE (Power over Ethernet)
- 部件没有损坏（损坏部件应立即修理）
- 由工厂授权人员使用批准的材料进行所有维修